



AF/ 2811 IFW

Docket No.: 50090-339

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Customer Number: 20277
Takashi INBE : Confirmation Number: 6344
Serial No.: 09/960,356 : Group Art Unit: 2811
Filed: September 24, 2001 : Examiner: Gene Munson
For: SEMICONDUCTOR DEVICE FOR DETECTING NEUTRON, AND METHOD
FOR THE FABRICATION

REPLY BRIEF

Mail Stop Appeal Brief- Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The following Remarks are respectfully submitted in response to issues raised in the Examiner's Answer dated May, 25, 2004, pursuant to 37 C.F.R. § 1.193.

The Examiner alleges that claim 3 does not recite a “**current** pulse” (emphasis added) and that it is not proper to read limitations appearing in the specification into a claim when these limitations are not recited in the claim. As Appellant explained in the Appeal Brief (page 4), it would be clear to one of ordinary skill in this art that “pulse,” as recited in claim 3 is a current pulse. The scope of claim 3 is clear to one of ordinary skill in this art.

Definiteness of claim language must be analyzed, not in a vacuum, but in light of:

- (A) The content of the particular application disclosure;
- (B) The teaching of the prior art; and

(C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made (MPEP § 2173.02).

Based on content of the disclosure and the claim interpretation that would be given by one of ordinary skill in this art, it is clear that “pulse,” as used in claim 3, is a current pulse.

The Examiner also asserts that the specification does not state that a “pulse with particular height” is a current pulse. However, the mere fact that a term or phrase used in the claim has no antecedent basis in the specification disclosure does not mean, necessarily, that the term or phrase is indefinite. There is no requirement that the words in the claim must match those used in the specification disclosure (MPEP § 2173.05). Applicant submits that it is clear to one of ordinary skill in this art the “pulse with a particular height,” as recited in claim 3, is a current pulse. As disclosed in the instant specification in the paragraph beginning at page 6, line 9,

a pulsation of current flowing through the PN junction can be amplified on the basis of the amount of electric charges collected from the depletion layer, and hence energy spectrum of α rays can be estimated with the aid of counting or by measuring peak height distribution. It is therefore possible to estimate the number and properties of the irradiated neutrons by analyzing the current flowing through the PN junction.

The Examiner asserts that specification does not describe how the “single channel height analyzer circuit” relates “selecting only a pulse with a particular height” to the “counting” or to “measuring peak height distribution.” In view of the teachings of Appellant’s disclosure at page 3, lines 21-28 and page 6, lines 2-17, it is clear to one of

ordinary skill in this art that the single height analyzer circuit selects only a pulse with a particular height to estimate an energy spectrum of the α rays with the aid of counting or by measuring peak height distribution.

On page 4 of the Examiner's Answer, the Examiner maintains that the "Brief did not explain what the circuit is." To the contrary, Appellant submits that the claimed analyzing circuit portion, required by claim 3, is enabled for one of ordinary skill in this art. The analyzing circuit portion includes an amplifier circuit for amplifying a fine signal and a single channel height analyzer for selecting only a pulse with a particular height to estimate an energy spectrum of the α rays with the aid of counting or by measuring peak height distribution using current flowing through the PN junction. Thus, the breadth of claim 3 and the nature of the invention is fully enabled for one of ordinary skill in this art.

In addition, the Examiner argues that Appellant provided no evidence related to factors C through H that the specification would enable any person skilled in the art to make the circuit. However, as explained on page 6 the Appeal Brief, the Examiner has the initial burden to question the enablement. Appellant submits that the Examiner has not met this initial burden.

Based upon the arguments submitted *supra* and in the Appeal Brief, Appellant respectfully submits that the Examiner's rejections under 35 U.S.C. § 112, first and second paragraphs, are not legally viable. Appellant, therefore, respectfully solicits the Honorable Board to reverse the Examiner's rejections of claims 3 and 5 under 35 U.S.C. § 112, first and second paragraphs.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

MCDERMOTT WILL & EMERY LLP



Bernard P. Codd

Registration No. 46,429

600 13th Street, N.W.
Washington, DC 20005-3096
(202) 756-8000 BPC:BPC
Facsimile: (202) 756-8087
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